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Iowa State Agricultural College

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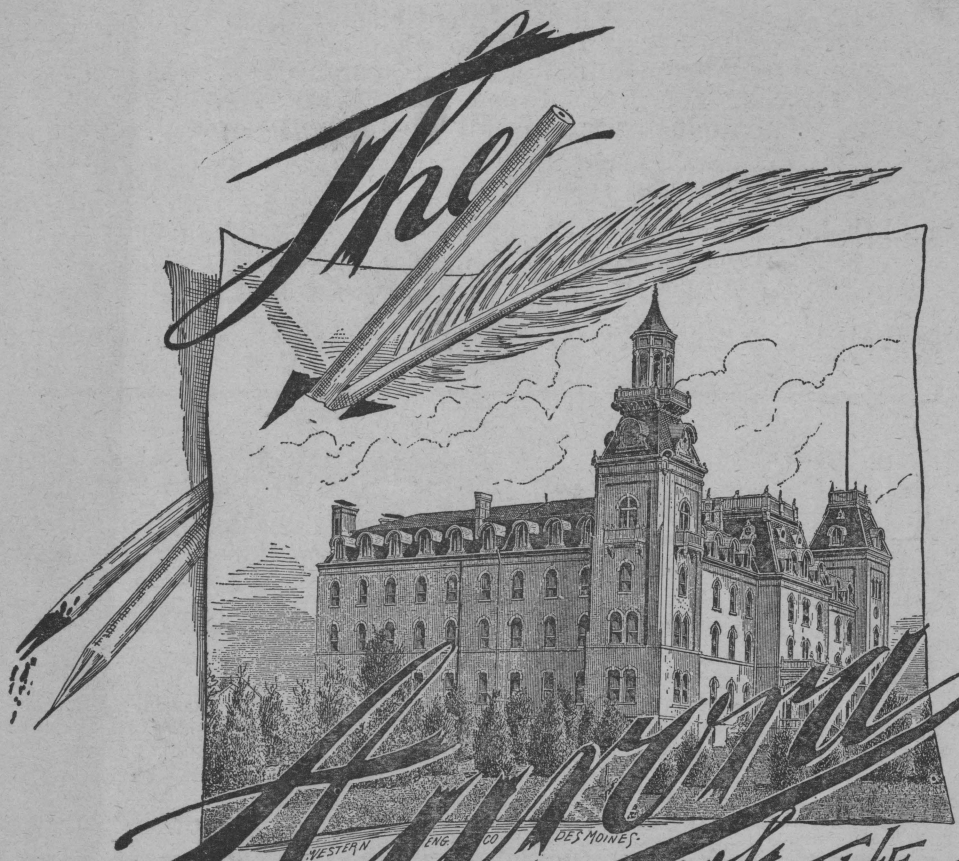

The Homestead

of the Iowa Agricultural College,

Ames, Iowa.

For Contents See First Title Page.

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CONTENTS.

THE AURORA.

Volume XX. September Number, 1891. Number 5.

THOUGHT AND STYLE.

[From an unpublished address by the late Prof. E. P. Barrows.]

My theme is *Thought and Style*—not thought without style, nor style without thought; but thought and style in their relation to each other. I once heard it related of a young woman who was engaged in the perusal of a new book, that when asked how she liked the style she answered with great simplicity: "I have not come to the style yet." This, I fear, is the case with too many youthful writers. They have not come to the style yet, at least so far as to have any intelligent apprehension of its relation to thought. Many of them seem not to understand that there can be no really good style without a basis of good thought; while others are careless of their style, as if the manner in which thought is expressed were a matter of little consequence. I purpose to consider in order these two opposite errors.

We will begin with the error of supposing that any selection and arrangement of good words can constitute a good style, except as they are the medium of good thought, and appropriate to it. In other words, a beautiful style must be the vehicle of beautiful thought, a forcible style of forcible thought, and a sublime style of sublime thought. You will all agree with me that to write down a series of fine words—rainbow, golden and purple sunset, azure blue, morning carol of feathered songsters, sweet-scented violets, blushing roses, snow-white lillies, glittering diamonds, and so on—that such a series of fine words could not constitute a fine style. But how much better does a young lady do who selects for her composition some fanciful theme, say the History of a Raindrop, and carries it through with only a very thin layer of thought? "I was born," so the history begins, "in the sombre bosom of a cloud lined with gold and silver, amid vivid lightnings and rolling peals of thunder. I was cradled in a rainbow that spanned with its beauteous lines the arch of Heaven. Descending gently to the earth a modest violet received me into its fragrant bosom, and there I glittered like a diamond in a fair maiden's necklace. Drawn up again to my native sky by the golden beams of Phœbus, I was wafted by the sweet zephyrs over fields of emerald green and flowery meads," and so on. To what, now, does all this amount, but a series of fine words strung together by an extremely slender thread of thought?

Equally vain would be the attempt of a young man to produce a sublime composition by selecting for his theme a volcano or an earthquake or a battle and overloading the story with epithets—what the poet calls "demijohns and foot-and-a-half words." Sublimity lies essentially in the thought. It ought to have an appropriate setting of words; but the simplest words are often the most effective. "The Lord," says the prophet, "hath his way in the whirlwind and the storm, and the clouds are the dust of his feet"—words of wonderful sublimity. But wherein lies their majesty and force? Not in any array of strong epithets, but in

the thought itself which the words so naturally and adequately express. In the following sublime passage from Milton's *Paradise Lost* there are but two words, "empyrean" and "seraphim," that are not in common currency. Notice also how little use is made of intense epithets, and how the strength of the thought is conveyed mainly by verbs, nouns and the commonest adverbs:

"He on his impious foes right onward drove,
Gloomy as night: Under his burning wheels
The steadfast empyrean shook throughout,
All but the throne itself of God. Full soon
Among them he arrived, in his right hand
Grasping ten thousand thunders, which he sent
Before him, such as in their souls enfixed
Plagues: they, astonished, all resistance lost,
All courage; down their idle weapons dropped.
O'er shields and helms and helmed heads he rode
Of thrones and mighty seraphims prostrate,
That wished the mountains now might be again
Thrown on them as a shelter from his ire."

The ceaseless roar of Niagara all who have heard it know to be grand and awful. But this is no artificial accompaniment of that cataract got up for effect. It is the thunder of the mighty river itself, as it plunges into the boiling abyss below. Suppose, now, that one should make a miniature model of Niagara, using for this purpose a brook a few yards across, with a fall of a few inches carefully moulded into the shape of the horse-shoe and American falls; and should then arrange on each side a row of boys with bass drums, under the idea of making the fall sublime, all would laugh at the ridiculous exhibition. But it would not be more ridiculous than the attempt to give sublimity to a tame and common thought by enveloping it in a cloud of high-sounding words.

Style may be called the *vehicle* of thought. And between the vehicle and its contents there ought to be a correspondence. "A word fitly spoken," says the wise man, "is like apples of gold in baskets of silver." For apples of gold baskets of silver are becoming vessels; but for a mess of garden vegetables a common basket would be more appropriate. Potatoes would be potatoes still though brought into the kitchen in silver baskets.

Style may be compared, again, to the *medium* of thought. The end is to make thought manifest. It exists, then, not for its own sake but for the sake of its office. When a window is set in the wall not to be looked through but to be looked at, it is altogether appropriate to adorn it with panes of different colors and covered with elaborate painting. But the window that is to give a true view of the scenery without must be clear and simple; and there should be, moreover, something without worth seeing. That the window be ever so transparent will be of no avail, if the only prospect which it presents is an unsightly bog, a sandy waste, or a field overgrown with weeds. So it is with an author: if he had no other end but to show what an array he could make of fine words, ornament for its own sake without reference to thought would be in place. But if he writes to communicate ideas, then style is to him the window of thought; and when he calls men to look through this window he must have something to exhibit that is worth being seen.

We bring, then, this part of our theme to a close by remarking that *for a truly good style mental culture is needful*—a culture which shall develop the powers of the mind, and store it with vigorous and manly thought.

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THE QUAKER POET.

[By Miss Alice Mann.]

About three miles from the town of Haverhill, in the old "Bay State" still stands the house "which sheltered the infancy and youth of one who lays claim to no warlike deed or heroic exploit, yet who will live forever in the hearts of his countrymen, and be beloved by generations yet unborn, wherever the language of his lays is known."

"Thrice blessed is he who has not to wait for tardy recognition from posterity, but who in his own day and generation receives the laurel from his own familiar friends in the land where he was born, thus proving the exception to the rule that 'a prophet is never without honor save in his own country.' "

"This happy fate has fallen to him of whom I write—the venerable poet, John G. Whittier" who is now passed eighty-three.

The "Bachelor Poet" did not enjoy the culture and refinement which fell to the lot of many of his American contemporaries. "He is," says Frances Underwood, "less indebted to art, to scholastic culture, to the influences of literary companionship, than any of his brethren. There was nothing in his early surroundings to encourage and develop a literary taste. If his gift had been

less than genius, he would have been a farmer like his forefathers, instead of a poet." Ridering says: "Literature was a spontaneous impulse with him, as natural as the song of a bird."

Near Haverhill, Massachusetts, in a home one hundred and fifty years old, the poet Whittier was born. "Conflicting dates have been published as the birthday of Mr. Whittier, and it is related that one anxious to know the true one, sent him an inquiry, coupled with the remark that of course "he himself must know?" He replied that "the event made little or no impression on his mind at the time, but that his mother had always instructed him to believe that it occurred upon the seventeenth day of the twelfth month, 1807; and as she was ever an entirely truthful woman, he felt sure that might be relied on as the exact date."

The exterior and surroundings of the Whittier house have been little changed since 1807. The well with the old-fashioned curb and the "long sweep high aloof

"In its slant splendor seemed to tell
Of Pisa's leaning miracle."

But the interior has been refitted to suit the taste of a modern housewife. The Whittier home long since passed into the hands of strangers, while the poet's own home is now at Amesbury.

Failing health and old age made it necessary for Mr. Whittier to seek other care than that of hired attendants. During the later years of his life he has lived with relatives.

"For," says Anna Lear, "he who has sung to us so sweetly, and so long, of love for all humanity, has been wed only to its cause; is a life-long bachelor, though revered by women and beloved of children the wide land over! How many wives and mothers who have never seen him have been comforted by the messages his pen has given the world—have found in his sublime utterances a solace for hidden griefs, and a courage still to endure them without loss of faith in"—

"Immortal love, forever full,
Forever flowing free,
Forever shared, forever whole,
A never ebbing sea."

Whittier's boyhood home and the members of his family are beautifully portrayed in "Snow Bound." In this poem all under the paternal roof are pictured as being so comfortable and happy, seated near the glowing fire, that

"What matter how the night behaved?
What matter how the north-wind raved?
Blow high, blow low, not all its snow
Could quench our hearth-fire's ruddy glow."

"For a description of the poet himself, we turn to the verses in 'The Barefoot Boy' in which is pictured a youth who knows the freedom and the language of the rugged New England country about Haverhill."

"If Whittier's boyhood home was humble, and his family poor in worldly goods, he was certainly rich in the wealth, beauty and luxuries of lavish Nature. And hence, Nature was his great open text book, the best of all volumes for the study and perusal of poets."

His early education consisted of three months at a common district school and two years at the Haverhill Academy. Of the latter the poet writes: "The two years spent at the Academy I have always reckoned among the happiest of my life."

In a letter written to one of his classmates, dated the twenty-fifth of November, 1885, he wrote:

"It has been our privilege to live in an eventful period, and to witness wonderful changes since we conned our lessons together. * * * If life is to be measured not so much by years as by thoughts, emotion, knowledge, action, and its opportunity of a free exercise of all our powers and faculties, we may congratulate ourselves upon really outliving the venerable patriarchs. For myself, I would not exchange a decade of my own life for a century of the Middle Ages, or a 'cycle of Cathay.' "

Not far from the early home stands a school house, not the one, but on the same site of that other structure "in which the dear little companion of his school days confessed her grief at out spelling the embryo poet."

"I'm sorry that I spelt the word:
I hate to go above you.
Because the brown eyes lower fell,
Because, you see, I love you."

It is rumored that this little girl of whom he long after wrote,

"Still memory to a gray haired man
That sweet child face is showing,"

was to have been the companion of his life, and that bereft of her by death, he found none other to fill her place. This may be but the idle imagining of some romancer, but in another poem he speaks of

"***The dear memory of one who
might have turned my song
to sweeter music by her delicate ear."

The pictures of Whittier extant hardly do

him justice. But one painted by an old schoolmate and which now hangs on the wall of the public library of his native town "has caught the fire of the deep set eyes, and the firm serenity," which, Stedman says "by transmitted habitude dwells upon the lips of the sons and daughters of peace."

A personal friend says of him, "The fire is not yet burnt out from his dark expressive eyes, and he is not at all the dreamy, pale faced being a poet is supposed to be, but is simply a gentleman, upright in form, active in manner, and forceful in look."

At an early age Whittier borrowed a copy of Burns' poems from his school master and by reading this he received the inspiration to write in verse himself. It is said that his earliest poems are imitations of Burn's.

One day his sister, without his knowledge, sent one of his poems to the "Free Press" a paper published by William Lloyd Garrison at Newburyport. It was entitled "The Exiles Departure," and was published. Mr. Garrison was so much pleased with it that he went to see the young poet. He found him in the field "clad only in a shirt, trousers and straw hat." A life long friendship sprang up between them and "hand in hand Garrison and Whittier entered the great struggle for the emancipation of the negro. From 1829 to 1839 Whittier edited newspapers at Boston, Hartford, Haverhill, Philadelphia and Washington, consecutively." He was secretary of the anti-slavery society at Philadelphia. For over thirty years "the powers of his genius were directed to writing verses to awaken the people to the horrors and wickedness of slavery and the dreadful traffic in human souls. The poems in the volumes entitled "Voices of Freedom," The Panorama and other poems, and "In War Time" are full of fire and inspiration, and glow with moral indignation and scorn. They were as spirit-stirring as a trumpet blast, and a powerful help toward the down fall of slavery. In the "song of the free" he writes:

"If we have whispered truth,
Whisper no longer;
Speak as the tempest does,
Sterner and stronger."

and in another of his poems relating to this subject,

O, speed the moment on
When wrong shall cease, and liberty and love
And truth and right throughout the earth be known
As in their home above."

After the civil war the "Quaker bard turned pen to gentler themes." He settled down at his quiet home in Amesbury and there wrote "Snow Bound." "Tent on the Beach" and many other poems. These secured for him a place among the "best classic writers of America."

On the 17th of last December "Whittier reached his eighty third birthday; and no poet was ever more endowed with the love and reverence of the American people, than he; and in his old age he enjoys the reputation of seeing his poems become the real household songs of his nation."

The poet once said that no one should write in verse after reaching the age of seventy, except Holmes, and that Holmes might write till he was a hundred. Still he himself writes a little because he cannot refrain from it and reads much in "the great volume of nature with his usual enjoyment."

For many years he has avoided crowds and excitement and has been obliged to deny admission to many who seek him. The story is told that at one time he was so tormented with visitors that when one would come he would take him out to walk and would manage to lose him in the streets of the city. He and his sister, with whom he was then living, had many a laugh about their "lost friends."

He is unable to answer all of the letters sent to him but deeply regrets that he cannot "grant every favor asked of him."

Mr. Whittier's present home is at Danvers, Massachusetts, where he lives with a cousin. Here, it is said, the aged poet "may often be seen plying his hoe or rake among the flowers, or watching the antics of the squirrels, or listening to the birds in the overarching foliage."

Of the character of the Quaker writer William Cullen Bryant said: "He is a poet whose life is as beautiful as his verse, who has occupied himself with noble themes and treated them nobly and grandly and whose songs in the evening of his life are as sweet and thrilling as those of his vigorous meridian."

One has said of his works, "His themes and their influence shall benefit humanity as long as time endures." In one of his poems he wrote

"Give fools their gold, and knaves their power;
Let fortune's bubbles rise and fall;
Who sows a field, or trains a flower,
Or plants a tree is more than all
For he who blesses most is blest.
And God and man shall own his worth
Who toils to leave as his bequest
An added beauty to the earth.
And soon or late, to all that sow,

The time of harvest shall be given;
The flower shall bloom, the fruit shall grow,
If not on earth at last in heaven!"

"He is," says Frances Underwood, "a fiery apostle of human brotherhood, and has chanted anathemas against war and every form of cruelty and superstition. He is eminently a national poet. His mind is in full sympathy with the progressive ideas of the new world."

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Scientific Department.

WATER SUPPLY.

When we remember that 75 per cent of our whole body is constituted of the elements of water, that about 95 per cent of our healthy blood, and not less than 80 per cent of our food is also water, we readily acknowledge the important part it plays in our very existence.

The solvent powers of water exceed those of any other substance known to chemists, and it has a very wide range of affinities. It is directly or indirectly the agency which dissolves our foods and separates them, and acts also as the vehicle by which the appropriate parts are transmitted through the body and enabled to perform their functionary offices.

The purest natural waters found upon the earth are usually those that have come down in natural streams from granite hills; but if a careful analysis of all of these be made not one will be found to be wholly free from some admixture. Hence we see that in the economy of nature it has not been ordained to be best for man to receive water in the state chemically called *pure*.

Of the sixty thousand grains in the United States gallon of water even tho' pronounced good potable water by the physicians there may be found from one to eight grains of certain impurities. These impurities are usually grouped into two general classes, the mineral or those derived immediately from *mineral* substances, and the *organic* being those derived either directly or indirectly from living organisms.

The mineral impurities are usually much in excess of the organic, and consist principally of some combination of the metallic elements, calcium, magnesium, iron, sodium, potassium, etc. There are certain elements that united form organic matter, as carbon, oxygen, hydrogen, nitrogen, sulphur, phosphorus, potassium, magnesium and others. Certain of these enter into each organized body, but their mode of union there yet remains sealed in mystery.

In vain do we seek for pure water in the rains as they descend from the heavens, for in their transit from the clouds to the earth the little rain drops are ever taking on as a cargo the minute particles of mineral and organic matters which float about in the atmosphere. The respiration of all animate beings, the combustions of all hearth stones and furnaces and the decaying dead animals and vegetables, continually evolve acid and sulphurous gases into the atmosphere. Chief among the deleterious gases arising from decomposition are carbonic acid, nitrous and nitric acids, chlorine and ammonia. These are all soluble in water, and the mists and showers bring them down freely.

In the earliest times the people helped themselves from the nearest springs or brooks. But this hand-to-mouth process was available only in certain localities, and besides being very inconvenient, it afforded a supply to but a limited number of people. Thus as the districts became more densely populated and especially when the population tended to concentration, forming towns and cities, the need of a more abundant and easily accessible supply of water became quite apparent. Thus some person more ingenious than his fellows conceived the idea of getting the much desired liquid by simply making "a hole in the ground." The art of sinking and working wells in the earliest ages had arrived at great perfection.

But wells could not be got everywhere and to meet this want a plan of carrying the water from place to place in vessels was adopted. And primitive as the plan appears it lasted till quite modern days. Even a century ago it was the customary method in many of our great cities. Gradually however a more appropriate device was being perfected. It consisted of conduits through which the water flowed by means of its own gravity. This indeed, is only an imitation of the natural streams. The method though not very universal was mentioned by Homer and we are told, furnished the basis of the magnificent water supply of the Eternal city.

These ancient aqueduct-conduits usually terminated in public fountains from which the people could with little trouble or inconvenience get water carried to their dwellings. The first application of the house

supply that we have any record of was in London. Here water wheels were erected which pumped the water from the Thames river and forced it along pipes laid through the streets; hence Stowe says that the "Thames water was conveyed into men's houses by pipes of lead."

There are two principal methods by which water may be distributed through a system of pipes; first by the pressure due to the high level of the water in a reservoir, either artificial or natural, and second by the pressure exerted by the pumping engine. In the construction of a reservoir great care must be taken to secure absolute safety of the dam, otherwise there is danger of its suddenly giving way and letting loose an enormous mass of water from a great height down upon the country below. The breaking of the dams at Dale Dyke reservoir and Johnstown are frightful examples of this.

The source of water supply is frequently a very perplexing question to the engineer, and the discovery and proper conduction of such supply to the place where needed are often accomplished only by the most ingenious methods. Thus the supply of Glasgow is derived from Loch Katrine, a lake lying 367 feet above the sea, and forming a resorvoir for the catchment-basin above it, in which the rainfall is very large.

The conduit from the lake to Glasgow is 26 miles in length, of which 13 miles are in tunnels under hills, and 4 miles are in iron pipes across valleys. It will deliver about 50 million gallons per diem and cost about £1,000,000 sterling. We find other examples in Europe where the supply of water is derived from streams on the opposite side of the mountain the waters of which otherwise would have found their way to entirely a different ocean. Not long ago there was some talk of supplying the city of Chicago from the pure water of lake Superior.

It is quite customary to make our rivers the general highway for sewage. Thus frequently the large sewers of a city empty into the identical river that must furnish a dozen towns further down the stream with drinking water. The result of a continued use of such water cannot be otherwise than harmful. It is true that sewage must be disposed of and to a great extent the rivers of the land must be the sources of water supply. But with the intricately branching river system of the United States, some bearing the sparkling waters of the mountainous regions, others laden with the germs of decaying vegetation from the low plains, we must admit that nature designed a sanitary system for us years ago and very nicely too. The only thing that remains for us to do is to investigate the system that is given us, pass laws protecting such streams as furnish a pure supply of the crystal liquid, and at the same time set apart others as general highways by which the sewage of our land may reach the ocean. In some cases the perfecting of this plan may entail a considerable additional expenditure, but it must be remembered that the value of *pure healthful* supply of water is not to be estimated in dollars and cents. That the first cost is not of prime importance, and as in other departments of the industrial world "the cheapest is often the dearest." W. H. J.

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SCIENTIFIC NOTES.

Of the many curious plants that go to lend fascination *gayety* to the life of the botanist perhaps none other equals the laughing plant in this respect. The plant grows in Arabia, and is so called by reason of the effect produced upon those who eat its seeds. The laughing plant is of a moderate size, with bright yellow flowers, and soft velvety seed-pods each of which contain two or three seeds resembling black beans. The natives of the district where the plant grow dry these seeds and reduce them to powder. A dose of this powder has effects similar to those arising from the inhalation of laughing gas. It causes the most sober person to dance, shout and laugh with the boisterous excitement of a mad man, and to rush about performing the most ridiculous antics for about an hour. After the effects of the powder are weakened the excited person becomes exhausted, falls asleep. and in a few hours awakes ignorant of all that has taken place.

***

We are told that Moses produced water by striking a rock in the desert. Faith is an excellent thing and Moses must have been brim full of it, but it seems that some of our friends who are trying to produce rain in Texas by means of explosions, even rival Moses in possession, of the genuine article. While these interesting and expensive experiments are being carried out it should be of special interest to science to ascertain what would be their effect when the general conditions of the atmosphere are favorable for rainfall. To produce rain

it is absolutely necessary that the surface air should not be dry, and whatever the effect of the explosives may be at a higher level, the rain drops cannot reach the ground by passing through dry surface air, and it is also hard to conceive of a way by which an explosion would change a dry to a moist air. We do not wish to disconrage an undertaking that if successful would *shower* blessings over countless millions, but we would venture the suggestion that our experimenters come down from the desert mountains and make their noise where there are little rain drops to hear it, then if they observe closely nature's laws they may reasonably look for rain.

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THE AGRICULTURAL DEPARTMENT.

Various improvements in this department are in progress. It may be interesting to readers of THE AURORA to know that good butter and cheese will soon be a daily product; that cold storage for fruits, vegetables, meats, and dairy products is being provided and that arrangements will be made for giving thorough instruction to students (including girls) in all the operations of practical and experimental dairying. The erection of a $10,000 dairy is now well under way. It will be a model in pleasing appearance, convenience and utility, containing all modern appliances and improved machinery. The mysterious microbe will receive due attention. Sufficiency of room and machinery will admit of individual work by the student. The gravity system and other conveniences will eliminate manual labor to the utmost extent. The highest possible degree of cleanliness will be attained. The daily capacity will be 30,000 pounds of milk per day. Mr. Leighton, a successful butter maker of many years experience and a high reputation, is on hand to superintend the practical work.

A large hog barn has been erected embodying all modern improvements, special attention being given to sanitary conditions and the lighting and ventilating features. The new sheep are admired by all lovers of the ovine race who see them. Twenty head of cattle representing ten different breeds including the persistent "scrub" have recently been purchased for illustrative and experimental purposes. Six head of horses purchased in England and France are being imported for the farm.

The work of the Experiment Station is of itself enough to employ a strong corps of workers. Bulletin 14 just issued contains experiments in which some very striking results were obtained. A careful study of the sugar beet industry is being made. Feeding for different purposes and by different methods is being investigated. Some important experiments are in charge of the agricultural students and those in the advanced years of their course will write them up for the Bulletin. The new agricultural course is the strongest that can be found in the west. The instruction embraces not only principles and practice of agriculture, but sufficient supplementary and general studies to constitute a strong education.

The winter course will begin December 1st, and continue ten weeks. Instruction will be given in dairying, agricultural chemistry, horticulture, live stock, veterinary medicine, cultivation of crops, stock breeding, shop work, and mathematics.

Exchange.

'P2, 'P2, Where is the horse?

Keep cool; anger is no argument.—Webster.

"Study thy friend for his virtues, thyself for thy faults."

His own character shapes the fortunes of every man.—Nepos.

"How will I enter the money the Cashier skipped out with?" asked the book-keeper. "Under profit and loss?"

"No, suppose you put it under running expenses."—Pa. Times.

"I have a weight upon my mind,"
I overheard him say.
"That's good, said she, "twill keep the wind
From blowing you away."—Pa. News.

1st "How will they fill that hollow place up?"

2nd "We will have John go out there and tell a story."

The following is a bill handed in by the repairer of the Cathedral of Milan 1763 copied from one of our exchanges:

Correcting the ten commandments	$5.15
Embellishing Pontins Pilate and putting new ribbon on his bonnet	3.02
Replumed and gilded the left wing of the guardian angel	4.12
Washed the servant of the high priest and put carmine on his cheek	5.12
Adjusted two stars and cleaned the moon	7.15
Put a new tail on the devil and mended his left hoof	7.17
Rebordered the robe of Herod and adjusted his wing	4.00
Put two new stones in David's sling, enlarged the head of Goliah and extended his legs	3.00
Decorated Noah's ark	3.00
Mended the shirt of the prodigal son and cleaned his ears	4.00
Total—	45.75

"A wide-spreading hopeful disposition is your only true umbrella in this vale of tears."

"Tis heaven alone that is given away, 'Tis only God may be had for the asking."—Lowell.

"If you wish to listen to an interesting agricultural address, engage a man to deliver it who never even planted his foot on a farm."

"When Mable was discreet sixteen.
She was so prim and so sedate,
She was so dignified of mein,
So calm, unruffled and serene,
You would have thought her thirty-eight."

"But now that Mable's thirty-eight,
Oh, what a difference is seen:
She's struck now such a giddy gait,
And goes it at so brisk a rate,
You'd surely take her for sixteen."

"All things exist in the man tinged with the manners of his soul."

Thare iz only one thing that kan be sed in favour ov tite boots. They make a man forgit all his other sorrow.—Josh Billings.

ACHILLES AND THE TORTOISE.—We quote from the N. Y. Tribune a paradox, which has been inherited from the Greeks, that of Achilles and the tortoise.

Achilles (the swift footed) allows the tortoise a hundred yards start, and runs ten yards while the tortoise runs one. Now, when Achilles has run a hundred yards the tortoise has run ten yards, and is therefore still that distance ahead. When Achilles has run these ten yards the tortoise has run one yard. When Archilles has run the one yard the tortoise has run one-tenth of a yard. And when Achilles has run the one-tenth of a yard the tortoise has run one-hundredth. It is only necessary to continue the same process of reasoning to prove that Achilles can never overtake the tortoise. Ye mathematician as logical reasoner, tell us, is this true?

*
* *

Hang it all.

Let's smoke—Stokes.

Lyric Poems are poems that are generally accompanied with a lyre. [Hist. of civ.]

Some of our boys spent a night in purgatory last week, Morpheus was not in it.

The political fight in New York is between a Republican Fassett and a Democratic bar'l.—Tribune.

Our ball nine have been skirmishing for a game of ball that will bring in the lucre.

Merideth and Blondie have taken a short fishing expedition on the banks of some secluded stream, beware of fish stories.

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Lecture Association.
E. C. Oggel, President; Clarice McCarthy, Secretary.

Oratorical Association.
J. H. Moore, President; Mabel Owens, Secretary.

Y. M. C. Association.
J. C. Norton, President; E. E. Clinton Corresponding Secretary.

Y. W. C. Association.
Mary Nichols, President; Jennie Thornburg, Corresponding Secretary.

Athletic Association.
F. J. Bowne, President; Wincent Zmunt, Secretary.

The year has witnessed the repeal of many of those unpleasant regulations, that have always been a source of irritation to the student.

The suspension of all law would result in universal chaos.

The suspension of all college rules would result in extreme disorder.

Let us not allow the necessity of a partial or complete return to the old regime.

Flagrant violations of either social or study rules should be immediately and severely condemned by every order-loving student.

It is a lamentable fact that there are a few among us who have neither the self-respect nor the fear of public criticism, sufficient to cause them to desist from disobedience almost unpardonable against the few rules that are now in force.

The best argument in favor of attending this college has been, that here there existed both discipline and thoroughness, which are the elemental principles of character and education respectively.

Let us endeavor to strengthen the argument. REYD.

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Among the many good things that may be learned in a college course is that of punctuality, ranking in importance very high. With some this becomes a habit; they meet all their appointments, are at their classes or in line in their Company promptly on time. They keep no one waiting, are in nobodys way, and as a sequel of this duty well performed, are among the first in their class, in society, in the world.

The Professor calls on such a one, confident that he will make a good recitation, and it is a pleasure to have him in the class.

Contrast with the above the Student (tho he is certainly lacking a vital quality of a student) the one who invariably keeps you waiting five to fifteen minutes, who seldom gets to his Company till the roll has been called and for whom the Professor keeps an eraser to remove his absent mark.

He has the confidence of no one.

If you make an appointment with him you always expect him to be late.

There is no better place anywhere to form a habit of being prompt and punctual to all duties than here in our own college, with one hour bells, jingle, 10 o'clock lights, military drill, etc. Let us improve our opportunities along this line. E. P. H.

Are students allowed to vote in Ames? Is a question which is appropriate at this time. THE AURORA has reason to believe that we have, and more than this it knows you have. Every student who supports himself at this college, and is otherwise qualified as a voter has a right to vote in Ames. Then why not vote?

With the question of prohibition at stake no student should be indifferent either he wants prohibition badly enough to vote, or if he does not, for the same reason then *that* should cause him to exercise his great privilege.

There is no reason why two thirds of the students should not be qualified electors of Washington twp. We pay our way through school and to such as do this, there is no reason why they cannot declare themselves citizens of Story county.

The idea that a college student should be deferred from voting on state issues for the reason of a lack of interest in local matters, is an unjust one. Local matters ought to be and are generally voted blank by him (save the possible exception of a road supervisor) and with this objectionable factor eliminated no cause for complaint can be uttered against the student voter. See to it that you vote on State issues next November. A VOTER.

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In the history of the college 1891 will stand at the head of a page which will bear every imprint of a successful year, probably the most successful in the history of the college.

Progress is seen in every department, both the old and the newly organized. Never has there been so much building going on, such a large number of students in attendance, such a large and efficient force on the faculty, so much good feeling and harmony among students, such a general appearance of successful college work of all kinds. One has but to be present to feel this thrill of life which has come to stay at the I. A. C.

With the abundant facilities at hand six hundred stndents could receive thorough instruction in the different departments and we predict that the time is not far distant when the college register will show this number of regular students, and when to possess a diploma from the I. A. C. will mean even more than it does now. The same united efforts of students and faculty, people and trustees, must bring about the desired result.

The college is a healthful sturdy plant, showing a delightful growth. Leave it plant-

ed in the soil invigorated by the atmosphere that now imparts to it life. Let not the action of the Farmer's Alliance and Improved Stock Breeder's Association of last winter take place again. Allow a season of steady growth, instead of pulling up this plant by the roots, to see how much these roots have grown contrary to your bigoted ideas and tastes. And when you come here either for study or criticism, come to learn, and not to tell the Professor in charge what he should learn. Come to learn how to farm and not to tell the Director how he should farm.

Alumni Department.

I. A. C. AMES, IOWA, Sept, 22, '91.

To the Alumni:

In the chapel exercises tonight we were made to feel very deeply our duties and obligations to the homes from which we came, and having listened to the impressive remarks on the subject, I was started on a line of thought, which was somewhat after this style—The Alumni of the I. A. C. are the Children of the College. And the same as home, the happiness and life of the Institution depend upon the success of its children, and the interest and devotion they manifest for it.

We who are still in the "old nest" are always glad to welcome you home and wish that we might more often have the pleasure of beholding your familiar faces. But since duty calls you forth into the busy whirl of business life, we cannot expect to see you often, nor would we ask you to neglect for one moment the duties so constant in a professional life; for upon you we depend, for our standing as an institution of learning, in the state, as well as among other similar Institutions.

We cannot think, however, that it is asking too much, nor expecting too much when we say, we hope to receive occasional contributions from each of you telling us,—and through THE AURORA, your class-mates and friends—of your hopes or achievements, of things interesting or any facts which you who are out in the busy thoroughfares of life have the opportunity to see or hear.

Such material with which to fill the columns of the College paper would be of vastly more benefit and interest to both students and Alumni than all the orations and essays we could collect. You who see so much of life and nature, and who find it such an easy task to write an interesting paper, are greatly remiss in your duty to your college. Fulfill your obligations and receive the approval of all the patrons of THE AURORA.

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'87. Messrs. Faville and Craig visited friends at the College last week.

'83. Mrs. Mamie Knapp is visiting with her relatives and friends at Oxford, Neb.

'84. C. H. Sloan and family are visiting at Mr. Sloan's former home in Taylor Co.

'90. Miss Ada Mills has a position in the Jefferson high school for the coming year.

'87. Mr. and Mrs. Spencer Beach of Cortland, New York, announce the arrival of a son.

Miss Nell Johnson of '89 is teaching in Des Moines and Miss Alice Mann of '90 in Ames.

'89. M. W. Thornburg made a short call at the College during State Fair. His place of business is at Red Oak.

'90. W. C. Dewell spent last week in the College Sanitary, caring for his brother who has been quite sick.

'84. J. F. Porter brought his family west a few weeks ago, and then returned to his business in Alleghany City, Pa.

'89. H. P. Rolfs, who has been in Arkansas for some time gathering specimens for the Botanical Department, returned to the College a few days ago. He reports a pleasant and profitable time.

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ABOUT A BALE OF COTTON.

BY F. W. MALLY.

The cotton plant belongs to the mallow family. It varies in height from three to six feet according as the soil is dry sandy upland or rich bottom low land. An average plant on bottom land usually matures from 30 to 40 *bolls*. Bolls are the fruits of the plant. Before maturing they are conical and about the size of a guinea or hen's egg, and contain the seeds. The seeds are ordinarily about the size of the common white bean and like those of the milk weed are densely surrounded by fine white fibres. These delicate fibres the planters call *lint* and when ginned from the seed gives us the product called cotton.

The bolls are usually from two five celled and when mature the pericarp cracks (de-

hisces) along as many lines as there are cells to the boll. The dehiscence is gradual. As the boll opens the mature seeds surrounded by the lint gradually bulge out and form at first a pure white cushion upon the peduncle. Soon however through the agency of the winds these cushions are blown overboard, so to speak. and after a few days separate into as many white hanging, swinging tufts as there were cells to the boll. The cotton is now ready to be picked.

In this immediate region cotton picking usually begins about August first. The negroes form almost the entire army of cotton pickers except in sections where the white population predominates to their practical exclusion. The cotton picking season is eagerly awaited by the negroes as it is a time of reckless jollification and all, regardless of age, sex, or any other restrictions or qualifications, pick cotton. They provide themselves with large sacks made of coarse, unbleached muslin. These are hung by straps over the shoulders and drag along behind them some three or four feet. Into these the tufts of seed cotton are thrown as they are picked from the plant.

Those accustomed to the culture and refinement of our northern laborers are hardly prepared for the uncouth sights I have often seen of groups of these irresponsible creatures leaving their small cabins in the morning and starting to their respective fields of labor. Sparingly, and more carelessly dressed, shouting, laughing, singing and hallelujahs are simultaneously heard arising from the throats of large and small, old and young alike. These various noises intermingling combine to produce an effect upon the ear which memory can never forget. The scene is not perfect however until you can see the those large revolving white eye balls, with a sphere of darkness for a background, a capacious mouth always open and exhibiting a choice set of glossy white tombstones, a piece of watermelon in one hand, a plug of tobacco or a pipe in the other. Add now the various unmentionable gesticular motions which those parts of the body not otherwise occupied are performing and you have the scene about as I saw it the other morning. Some of your readers may think me severe. If so I have only to say that you in the north have the cultured and refined partially civilized negro, you have the cream of the entire negro element, but the genuine, irresponsible, unadultered nigger many of you doubtless have never seen much less learned to understand and appreciate. You have the best *negro* at his best, we have the *nigger* in his normal semi-barbaric condition. (I am not a democrat either.)

In a field of average cotton an adult can average picking 200 to 250 pounds of seed cotton a day, though the most skilled may in a fine cotton year pick 300 to 400 pounds a day. The usual rate paid for picking cotton is 50 cents per hundred pounds, though the rate varies somewhat with the scarcety of labor and the rush of the season. As a result laborers and servants for the household in the towns and cities are secured or even retained with difficulty except at fancy wages. Cotton picking continues in its prime until about Christmas though the poorer qualities are often picked as late as February.

At the close of each day the planter or, more frequently his manager, weighs the seed cotton picked by each laborer and records the amount. The whole is then loaded into wagons and transfered to the gin house where it is subsequently ginned and baled.

The cotton gin is run by steam or horse-power and, omitting details, may be said to consist of a cylinder of some 130 to 150 thickly set, fine toothed saws. Below this cylinder is a roller brush composed of thickly set, stiff bristles. This brush revolves in the same direction as the cylinder of saws but much faster and is set just high enough to brush off the lint from the saws and blow it away off into the lint room immediately behind. The seed cotton is elevated in proximity with a large wooden roller beset with long coarse spikes or teeth at regular alternating intervals. As the roller revolves these teeth catch hold of any lint which may be near enough, carry it up and drop it off on the other side where saws catch it and begin tearing away the lint from the seeds. As fast as this is accomplished and no more fibers remain attached to catch to the teeth of the saws and hold the seed in place it falls out from the gin below and is shoveled away. The seed is naked now and is no longer capable of being disseminated by the agency of the wind as nature had intended. Wonderful as it seems to think of a machine tearing away so nicely the fine fibers without injury to the seed or lint, yet the work is accomplished by a comparatively simple machine and you can stand by and observe the whole process.

The lint passes directly from the gin into the lint room. From here workmen gather it up and transfer it to the press adjoining

the lint room in which it is to be baled. The size of cotton presses vary though the usual dimensions of a ball are about 2½ x 3½ x 5 feet. From 450 to 600 pounds (500 being the standard) of lint are packed and pressed into this small space often in which the whole is wrapped and bound. The wrapping consists of coarse stout bagging (much like coffee sacks;) the ties are iron, are about an inch wide, one-sixteenth thick and twelve feet long. About 7 yards of the bagging are required to wrap a bale and from 5 to 6 ties to bind it. The former comes in rolls of 35, 50 and 100 yds, worth from 6⅛ to 7½ cents per yard; the latter come in bunches of 30, worth $1.45. To make a 500 pound bale of cotton about 1500 pounds of seed cotton are required. The cost therefore of getting a bale of cotton ready for market is about as follows:

Picking 1500 lbs. seed cotton at 50c per 100.	$7.50
Cost of ginning per bale	.50
" bagging "	.45
" ties "	.25
" production per acre (average)	7.30
Total cost per bale	$16.00

One-half bale per acre is considered on the whole an average crop. Three quarters to a bale are often produced in localities especially suited and under favorable circumstances. The present season the better grades of cotton are marketed at 8½ cents per pound. A half bale at that rate is worth $21.25. Deducting the total cost of production $5.25 remain as the net profit per acre. If three quarters of a bale are harvested per acre the profits are about 16 and 26 dollars respectively. This increase in profit per acre at first thought seems entirely out of proportion to the increased yield per acre. It must be remembered however that per acre it costs practically the same for production, picking, ginning and baling, whether the acre produces one-half a bale or one. This explains the apparently disproportionate increase in profits. The harvest seldom reaches more than a half bale per acre and the profit per acre upon which planters and business men calculate is about five dollars.

Shreveport, La. Sept. 19th.

(to be continued.)

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IN MEMORIAM.

One of the saddest duties, it is ours to perform, is to pay tribute to a departed friend. But, how much more delicate, ay, painful, is the task, when that friend is a best friend.

What a feeling of coldness comes over us when confronted by a simple enumeration of attributes. Words are but fickle instruments with which, to record the promptings of the heart.

Frank H. Cooley died in Nebraska, Tuesday, September 15th, 1891, and was buried at his home in Truro, Iowa, the following Thursday. He was of Bohemian parentage and was at the time of his death about twenty-five years of age. His disease was consumption. He, in company with his brother, had started overland for Colorado in a wagon, to make, as he put it, with a hopelessness which was pitiful, "one more kick for health."

Mr. Cooley graduated from the Civil Engineering course of the I. A. C. in 1889 at the head of the largest and one of the ablest classes that ever graduated from the Institution. His intense earnestness and restless energy made him a leader among his classmates from the first and as early, attracted the notice of his instructors as a very forceful character possessed of exceptional abilities. A man of spotless honor and unquestioned integrity, his upward career was but a continuous passport to higher and higher esteem with his classmates, until when his final laurels were won, no whispered word of jealousy would have been tolerated by those who could have most rightfully coveted his place, and never did any class render a more unanimous decision that merit had reaped its just reward.

He overworked himself, without a doubt, during his college course; then planting the seeds of insidious disease that ended his life. What a commentary on his untimely end! Well may instructors ask if there is not some other method by which the sluggish can be stimulated to greater exertion without goading to excessive and hurtful effort those who naturally, have all too much of ambition.

To his classmates his shortened years will stand a life-long protest against that reckless sacrifice of physical strength to mental ambition that cost him his life. Regrets, however, cannot avail to undo the past, but that frost-cut blossom of the spring will float its fragrance to many a foot-sore, care-worn traveler as he sweats in the heat of summer or rests in the gold of autumn and the grey of winter.

When silvered heads and vacant chairs

alone respond to the Alumnus roll call of Class '89, when its meed of honors and renown is fully in, there will not be one of those hoary veterans, but that will own his debt to that strong and true character that sharpened his college days, but that now, alas, is not.

We trust that the virtue that won such deserved reward with men has met its fuller and more perfect recompense at the hands of Him "Who knoweth us altogether." Brave, frank, noble, generous Cooley! Peace to his ashes! A CLASSMATE.

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DIED.

On Sunday morning, Sept 13th, '91 at the residence of his parents, in Pella, Iowa, of typhoid malaria, A. E. D. Bosquet, at the age of twenty-two years.

The death of Mr. Bosquet Sunday morning after a brief but severe illness, cast a gloom over many of Pella's residents last Sabbath. and especially were the young people overwhelmed with grief when they learned of the passing away in the very bloom of young manhood, of one of them who a few weeks before seemed the strongest and healthiest, full of life's fond dreams and bright prospects which were not to be. Of a genial and obliging disposition, ever ready to lend a helping hand he made friends wherever he went. But his life's work is done. The parents and relatives are bowed down in deep sorrow, and well they may, for this is a dark cloud which is overshadowing them. But the loving Father, who doeth all things well, will give them to say, "Thy will, not ours be done."—Pella Blade.

It is with regret that we learn of the death of another of our graduates, Mr. Bosquet a member of the class of '89. He will be sadly missed by his classmates and friends, who number many for he was loved by all who knew him. His death is a sad blow to all. Sincerely we extend our sympathies to the grief-stricken parents and relatives. May the dark o'er shadowing clouds be lifted and their troubled hearts find peace and consolation.

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Local Department.

FAIR NOTES.

How was Nevada water? Ask Carter and King.

"The Pommell" or "To the Charge" is the subject of a new book written by Chamberlain and Oggel.

The dress parade was the prettiest ever seen in Iowa.

What was Capt. Spaan doing in the afternoon? He's all right.

The girls drilled exceptionally well and elicited many fine compliments.

Dust was plentiful at the fair. Good water was scarce. The crowd was twice as great in numbers as ever before. The receipts doubled any day ever in the history of Story county fair.

The boys drill in the morning was fine and their skirmishing exhibition made the blood tingle and fired the eye of every old soldier who viewed it.

The I. A. C. Cadet corps is under obligations for the fine treatment they received while at the fair. Every officer was courteous and obliging and did all in his power to make the boys have a good time.

The drum major was eating H2o melon before drill in the morning, he was eating melon after dress parade in the afternoon. Query? Was he eating melon all the time? Certainly because (Backus) he was.

The 2nd battalion hereby thank Major Thornburg for his beautiful exhibition of equestrianship. "How to ride" is a question that has Bowne—d more than one in a knot of perplexity and made him Fidget—y for the rest of the rest of the day.

We went to the county fair,
And the sight it was all we could bear,
Oh the nice country girls, with their blushes and curls,
How their cheeks glowed like pearls, till our hearts they were hurled,
Right up through our breasts to our mouths.
We came home from the county fair,
And the sight that we saw remained there,
From the nice country girls we had kept not the pearls
Nor the blushes or curls, nor the heart that we hurled,
But a great aching void in our souls.
Remark—Mouths and souls ought to rhyme.

If the exhibit in the Agricultural Hall at the Story county fair is to be taken as a sample of Story county's crops excuse us from farming in Story county. Ye editor noticed 6 ordinary plums on a plate and wondered what they were there for. Do they represent the fruit crop in this county. They do not and the farmers should see to it that their interests are represented. Make the fair what it ought to be, a fair and not a rendervous for "fakers." Next year the I. A. C. boys hope to see every department represented and filled to overflowing. The farm products can not be represented unless the farmers bring them and exhibit them.

Dr. Garth visited his daughter Rose on Sept. 3rd.

Mr. Spinney was visited by his brother on Sept. 2nd.

Mr. Tufts entertained his brother on Sept. 5th and 6th.

Mr. Titus was at the college on Aug. 30th to see his son.

Mr. Reed's father visited him on Saturday Sept. 19th.

Mr. Cory was visited by his cousin on Sept. 5th and 6th.

Mr. and Miss Roberts entertained their father on Sept. 3rd.

Mr. Jackson entertained his mother on Sept. 19th and 20th.

Mr. and Miss Hudson entertained their father on Sept. 20th.

Prof. Hainer entertained his brother on August 28th and 29th.

Miss Drew was visited by her parents on September 9th and 10th.

Miss Flora Wilson was visited by her brother on Aug. 25 and 26th.

Mr. Austin's parents stopped a few hours at the college on Sept. 2nd.

The painting of signs a specialty. For particulars address the class of 'p2.

F. O. Brown, a member of the freshman class, left for his home on Sept. 8th.

Judge Ryan was at the college on Sept. 2nd to see his two sons and daughter.

Mr. Emerson entertained his father and a gentleman friend on Wednesday Sept. 9th.

Mr. Hollingsworth entertained his parents, brother and sister on Sept. 4th and 5th.

Miss Ward once of the class of '93 made a visit with friends and classmates on Sept. 2nd.

Mr. Fairfield was showing his brother the superior advantages of the I. A. C. on Sept. 4th and 5th.

Mr. and Miss Malley were visited by their friend Miss Haulmann in the beginning of last week.

Mr. Fred Faville once a student of the I. A. C. made a short visit at the college on Sept. 12th and 13th. Mr. Faville recently graduated from the State University law department.

Ex-President Knapp made the college a short visit on Aug 28th and 29th.

Mr. Morehead was visited by his brother and mother on Aug. 28th and 29th.

John Georgen and sister came to visit their sister and view the college domains on Aug. 30th.

Mr. Meek a member of the Sophomore class left college on Sept. 23rd to teach school in Polk county.

Misses Gilchrist and Richman once of of the class of '91 made a visit with old classmates during fair week.

Mr. Tar once of the class of '90 came up to visit the I. A. C. on Saturday Sept. 12th. Some of his friends accompanied him.

Mr. Rolfs, the assistant in Botany, has again returned from his fishing trip in the Southern States. He reports a fine tour.

Mr. Raymond has returned from the Inter State shooting match at Springfield, Ill. He reports a fine time, but says "Iowa was not in it."

Mr. Morris, a brother of our graduate S. Morris, visited him on Sept. 12th and 13th. He is a graduate of Cedar Falls and speaks well of the I. A. C.

Mr. Clyde Jones' mother and brother arrived at the college on Tuesday Sept. 22nd. They intend to take care of him while sick at the hospital.

Mr. Minchen once of the class of '92 made a short visit with his friends and classmates on Saturday and Sunday, September 12th and 13th.

The Military boys report a fine time at the Story County Fair but say the exhibits this year were very poor. No department was represented as it should be.

The Professors of Pharmacy and Electricity at Highland Park, Des Moines, made a short call at the college on Saturday Sept. 19th. They speak well of the I. A. C.

W. C. Jones has been dangerously sick for the last week. We hope he will speedily recover. Mr. Jones contemplates entering Cornell University of New York this fall.

The lecture given by Prof. Wilson on Friday evening Sept. 18th was well received by the audience. The Prof. is one who has had a great deal of experience in Parliamentary Law and knows what he is talking about. We hope he will continue his lectures.

The I. A. C. boys say that more pretty girls congregated at the county fair than have ever been seen within a radius of ten miles of this institution. 'Twas simply immense!

Mr. Dewell, a member of the Sophomore class, has been severely ill for the last few weeks. He is again recovering. His brother Wm. was with him during the middle of Sept.

John Grattan was called to his home in Dakota on account of the sickness of his father. He left on September 14th. It is reported that he will not be back this fall to attend college.

Mr. Crouter left college on Wednesday Sept. 23rd. He has engaged to teach a school near Des Moines. Mr. Crouter attended school at Highland Park before he came here.

The students were filled with delight when the motor again made its appearance on Monday, Sept. 14th, to think that the weary walks from Ames to the college were once more a thing of the past.

Look at him—is he mad? What does he forever sitting there thus shaking that little box?

Oh that's nothing. That is Perley trying to "hang it all" [and he hung it.]

The political speech of Senator Allison in Hoggatt's Grove on Saturday Sept. 19th was beyond doubt very interesting. Although the Senator is not one of the best orators in the state he presented some good facts and showed himself worthy of the office he holds.

On account of great amount of material in the other departments, a number of editorials are omitted this issue. Many thanks however to those who so liberally contributed to the call. An interesting account of "My trip to Arkansas" by P. H. Rolfs will appear in our next. Look for it.

Realizing the great importance and practical value of a working knowledge of shorthand for use during the last years of a college course, several college presidents in the state have invited Pres. Mehan of the C. C. C. C., Des Moines, to visit their respective institutions and give their students an opportunity to learn what advantages and terms he can offer them for a short course in his college during the winter vacation. Mr. Mehan informed us a short time ago that he would be here sometime this term and would give those desiring it full information concerning his institution. We most earnestly advise all students particularly those of the preparatory, Freshman and Sophomore classes to take a course of this kind if it lies within the limits of their possibilities. We have so many notes to take and lectures to record during the last two years that a knowledge of shorthand for use during that time alone would pay for the investment, leaving as "clear profit" the ability to carry it into business life after graduation. Watch for Mr. Mehan's adv. and interview him when he comes.

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INFANTS.

This word "infants" is a common noun. It is used in more than one sense, often being applied to "grown up" people. The original use of the word" infant" was synonymous with baby but as the world has progressed we apply the word "baby" to these "little folks" that toddle around the house and prattle all day long but which make life brighter and less lonely for those that love them. Sometimes however we meet grown up people to whom we apply the name of infants, because while they act as babies it would detract from the latter to call them such. You may know an "infant" when you see him by the homesick look upon his face. The least little thing will disturb his mental apparatus and he runs to "mother" and if she cannot be found, to the nearest "old maid" for consolation. What is the world coming to? Are there not more infants to-day than ten years ago? One thing might be noticed here, that "infants" are more numerous among the educated than the ignorant. What is the reason of this? It may be the individual has been educated in all but "what makes a man." If so it would be well to have a school for "infants" wherein they may be taught, independence, courage and manliness. Contributed.

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STATEMENT.

In order to place myself in the proper light before the students of the college it seems that a statement is necessary.

A denial that information that Davidson's oration was plagiarized reached the president through me is not now necessary. I had no knowledge of the matter. No oration was sent to me for criticism; and no consideration of any description was offered or proposed by myself for doing so. There is absolutely no truth in the story or any of the stories. J. A. Shelton.

STATE COLLEGE

—OF—

Agriculture AND Mechanic Arts,

AMES, IOWA.

Officers of Instruction.

W. M. Beardshear, A. M. President. Professor of Psychology.
M. Stalker, M. Sc., V. S., Professor of Veterinary Science.
J. L. Budd, M. H., Professor of Horticulture.
E. W. Stanton, M. Sc., Professor of Mathematics and Economic Science.
D. S. Fairchild, M. D., Professor of Pathology, Histology, Therapeutics and Comparative Anatomy.
Col. James Rush Lincoln, Professor of Military Science and Tactics.
Alfred A. Bennett, M. Sc., Professor of Chemistry.
Herbert Osborn, M. Sc., Professor of Zoology and Entomology.
J. C. Hainer, M. Sc., M. D., Professor of Physics and Electrical Engineering.
A. C. Barrows, A. M., D. D., Professor of English Literature and History.
C. W. Scribner, A. B., M. E., Professor of Mechanical Engineering.
L. H. Pammel, B. Agr., Professor of Botany.
Mrs. Eliza Owens, Professor of Domestic Economy.
James Wilson, Professor of Agriculture and director of Experiment Station.
G. E. Patrick, M. Sc., Professor of Agricultural Chemistry.
D. W. Church, C. E., Professor of Civil Engineering.
Miss Stephanie Marx, B. L., Preceptress and Professor of French and German.
Miss Margaret Doolittle, A. B., Professor of English, Latin and Rhetoric.
Miss Fanny F. Thomas, A. M., Librarian and Professor of Elocution.
D. A. Kent, B. Sc., Assistant Professor of Agriculture.
C. F. Curtiss, B. S. A., Station Assistant.
Geo. W. Bissel, M. E., Assistant Professor of Mechanical Engineering.
W. B. Niles, D. V. M., Assistant Professor of Veterinary Science.
W. H. Meeker, M. E., Ass't in Mechanical Engineering.
Joseph Chamberlain, B. Sc., Assistant in Chemistry.
Leo Thurlimann, B. Sc., Assistant in Chemistry.
Miss Minnie Roberts, B. L., Assistant in Mathematics.
S. W. Beyer, B. Sc., Assistant in Geology and Zoology.
P. H. Rolfs, B. Sc., Assistant in Botany.
J. C. Norton, D. V. M., House Surgeon.
Miss Marie Chambers, Director of Music and Instructor in Vocal Music.
George Backus, Instructor in Instrumental Music.
Miss Jennie Gratz, Violinist.

Courses of Study.

Four Courses in Agriculture.

1. A Course of 4 years. 3. A short winter course.
2. A Course of 2 year. 4. A dairy course.

Five Other Special Courses.

1. A course in Sciences related to the industries.
2. A course for young ladies.
3. A course in Mechanical Engineering.
4. A course in Civil Engineering.
5. A course in Veterinary Science.

Also Special Post Graduate lines of Study in the Sciences.

Preparatory Class.

Beginning July 21st, a preparatory class will be formed and given instruction in Algebra, English Grammar, U. S. History and Human Physiology to fit students for entrance to the Freshman class of the following year.

Graduates of High Schools

Who have completed Algebra and are thorough in Arithmetic, Grammar and English Composition, and have had a year or more of Latin, can enter probably the second term of the Freshman year, July 21st. and graduate with the class in 3½ years. Catalogues and full information may be secured by addressing.

W. M. BEARDSHEAR, President,
Ames, Iowa.